

Work Order ID 136308

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Item ID: D5034-2 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Bubble Window
 Start Date: 9/1/2015 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 9/8/2015 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: SH Date: 01 50 90 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5034	A								
100	HAND FINISHING THERMOFORMING	0.00							DAS 07 9-89
100						x2			15/09/01
Thermoform	Memo	0.00							
Thermoforming Machine	Set up Clamping Frame and Load Programas per Work Instruction WI 163								
110	HAND FINISHING THERMOFORMING	0.00							DAS 07 9-89
110						x2			15/09/01
Thermoform	Memo	0.00							
Thermoforming Machine	Cut Blanks to 32" by 42-1/2"								

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* Thermoform Thermoforming Machine	THERMOFORMING MACHINE Memo Thermoform as per Dwg. D5034 and WI 163 Dwg. Rev. <u>A</u> WI Rev. <u>A</u> 1-Visually inspect part for proper formation and texture 2-Check depth of bubble	0.00 0.00				<u>XL</u>	<u>XL</u>		DAS 07 9-89 15/09/01 PTO → LAST PAGE
150 *150* Thermoform Thermoforming Machine	HAND FINISHING THERMOFORMING Memo 1) Trim off excess flange material 2) Buff out any light scratches or blemishes 3) Etch part number and batch number	0.00 0.00				<u>XL</u>	<u>⊗</u>		DAS 07 9-89 15/09/08,

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
155 *155* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Dimensional Inspection Memo Fill out Inspection Sheet Rev A	0.00 0.00				81	8		07 9-89 15/09/08
160 *160* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo 1) Visually inspect for clarity, and proper formation.	0.00 0.00				7	8	160908	DAS 9- 9-89
170 *170* Packaging Packaging	Identify as per dwg & Stock Location: _____ Packaging Memo Ship Sold	0.00 0.00				1			DAS 6 9-89 SEP 09 2015

Picklist Print

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Parent Item: D5034-2

D5034-2

Parent Item Name: Bubble Window

Start Date: 9/1/2015

Required Date: 9/8/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A New Issue 14/03/18 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.236		Purchased	No			100	sf	391.5930	13.34	13.40704			DAS 07 9-89

MACRI ICS 236

Plexiglass G 60" x 96"x .236"

15/09/01

Location

Loc Qty

Loc Code

therm

391.59296

M129447

0.59296

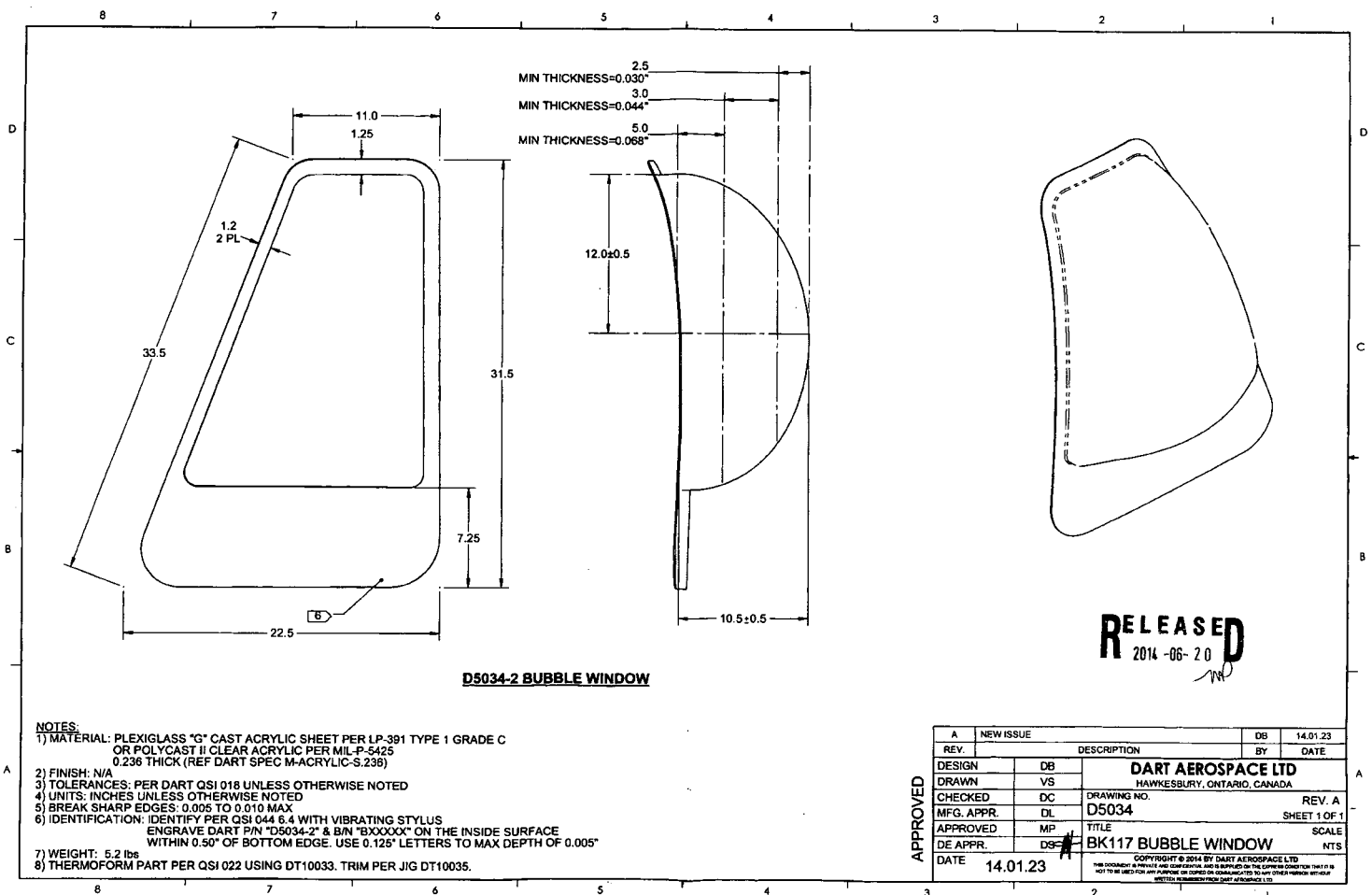
M131524

153

M132743

238

21.81 sq ft.



120150901

SH

136308

DART AEROSPACE LTD		Work Order:	136308
Description: Bubble Window (BK117)		Part Number:	D5034-2
Inspection Dwg: D5034	Rev: A	Page 1 of 1	

INSPECTION SHEET
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Bubble Depth within tolerance	✓			
Shape Definition	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by:	<i>Wk</i>	Date:	15/09/08
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
10.5	+/-0.5	10.5"	✓			
12.0	+/-0.5	11.5"	✓			
0.068	Min	0.085"	✓			
0.044	Min	0.064"	✓			
0.030	Min	0.042"	✓			
1.25	0.100	1.25"	✓			
1.2	0.100	1.2"	✓			
11.0	0.100	11.1"	✓			
33.5	0.100	33.5"	✓			
31.5	0.100	31.5"	✓			
22.5	0.100	22.5"	✓			

Measured by:	<i>Wk</i>	Date:	15/09/08
Audited by:	9 9-89	Date:	15-09-15
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	15.04.27	New Issue	KJ	<i>[Signature]</i>

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DOA: *Sub*

Date: 15/09/28

QA Closed: *PA*

Date: 15/09/22

Work Order: <u>136308</u>	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Work Order Update ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>5034-2</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>15-5344</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☒	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling	15/09/01	120	1	Sheet Ruptured & Blew-out while forming.	DAS 9 9-89	Scrap & Replace 1 part.	Wh 15/09/01	DAS 9 9-89	DAS 9 9-89
Operator					15/09/03			15/09/03	15/09/03
Material									
Setup									
Other									
Process				RC: too much face	5 15/09/21				
Supplier					02012				
Training									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric to O/S ☐ Cracks ☐ Crushed/Crimped ☐ Cuffs ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Ripples in Bend ☐ Torque Waves in Extrusion ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damaged ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drill Holes ☐ Drawing ☐ Finish ☐ Folio	☐ Grain ☐ Hardware ☐ Inspection Incomplete ☐ Instructions Incomplete/Unclear ☐ Maintenance ☐ Mislabeled ☐ Misread ☐ Offset ☐ Out of Calibration ☐ Out of Sequence ☐ Outside Dimensions	☐ Ovalized ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☒ Pressure/Forced ☒ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☒ Other <i>FD</i>
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Too much face